

GRADUATE JOURNAL

Writer's block

Whether for the advancement of science, of one's career or of a controversial theory, the importance of publishing remains incontrovertible. Although I'd sometimes like to ignore its significance, I can't.

Especially now, when I find myself facing the task of writing my first paper. The data are nearly there. It's almost the interesting story I imagined it would be when I first began the project two years ago. But it's a challenge to put the story into a package that the rest of the scientific community will find interesting.

To do that, I need to understand its place in the context of what has come before. I need to highlight how my story is new and different — and why it deserves to be published. At the very least, I have to convince unknown peer reviewers that my data add something of importance to the collective knowledge.

Having never written a paper before, I wonder if I will be able to do this convincingly at all. It may be that my anxiety at not being able to do so is the reason I haven't started writing yet. And I wonder whether my increasing anxiety should be excitement instead.

Anxiety and doubts or not, I know that I have to start writing. Otherwise, my work will remain unpublished — a nightmare for any ambitious researcher. ■

Anne Margaret Lee is a graduate student at Harvard University.

Community outreach

The general public often sees research universities as isolated entities that lack strong relationships with their surrounding communities. This perception, whether deserved or not, has given the universities the unfortunate image of ivory towers of academic isolation. In some cases, this has led to an underrepresentation of minority students in the sciences. To change this perception and increase the diversity in the sciences, it is increasingly important for scientists to initiate and participate in outreach projects involving the community at large.

At the University of California, Los Angeles, we are trying to address this issue in collaboration with the African American Male Achievers Network (A-MAN). Established by Hal Walker, a laser-systems specialist who collaborated

on NASA's first manned Moon mission, and Bettye Walker, a long-time Los Angeles educator, A-MAN was set up to increase the presence of minority students in the natural and physical sciences.

At Los Angeles, we have focused on teaching local middle- and high-school students what it is like to be a scientist at the university, by inviting them to work with us in the lab. We have introduced the students to the fundamentals of biological research, and have nurtured their natural curiosity through scientific experimentation. This year, we have performed experiments ranging from the analysis of bacterial morphology to DNA isolation and analysis. The students have even learned how to grow protein crystals for use in X-ray crystallography.

It is inspiring to see the students' enthusiasm and natural curiosity blossom during our weekly sessions,

and it is gratifying to hear them exclaim "cool!" when we demonstrate new experiments.

Experimental procedures that seem standard to most working scientists take on a new life when students do them for the first time. We hope that our work with these students will encourage them to continue their pursuit of scientific discovery, and as a result, increase the diversity of the next generation of creative scientists.

Science can only benefit from creating such bonds between the university and the surrounding community. Together, these bonds are likely to form long-lasting relationships that will undoubtedly foster scientific progress. ■

Michael Strong participates in the A-MAN community outreach project at the University of California, Los Angeles.

▶ www.aman.org

▶ www.doe-mbi.ucla.edu/AMAN/index.html

MOVERS

Barry Dickson, director, Research Institute of Molecular Pathology, Vienna, Austria



One book changed the course of Barry Dickson's career. Soon after the Australian researcher finished reading *Eighth Day of Creation*, Horace Freeland Judson's modern history of molecular biology, he swapped mathematics for biology. "Without it I wouldn't have become a biologist," says Dickson, who last month was appointed director of the Research Institute of Molecular Pathology (IMP) in Vienna.

The book may have sparked Dickson's fascination with the molecular mechanisms in cells, but it was good mentors who helped to convince him

that he had made the right move, as they helped to steer his research interests towards problems that excited him.

Ernst Hafen, a fruitfly geneticist who became his supervisor at the University of Zurich in Switzerland, taught him the joy of practising science. And during a postdoctoral stay with Corey Goodman at the University of California, Berkeley, Dickson finally made contact with neurobiology. This was the time he discovered what he really wanted to do: study developmental genetics and its significance for animal behaviour.

Aged 42, Dickson will take up his position at the IMP next January. Together with the Institute of Molecular Biotechnology, the IMP forms the backbone of Vienna's new Genome Research Center.

Dickson, who has worked at both institutes, will step into the shoes of Kim Nasmyth, a British biochemist who over the past few years has led the IMP to the

forefront of molecular biology. Dickson wants to continue his predecessor's policy of nurturing scientific talent and investing in young, ambitious people with a strong affinity for basic research.

The IMP is a good place to train young scientists, Dickson says, because they don't need to write grants every year to get funded, as the institute is financed by the drug company Boehringer Ingelheim. That freedom allows young scientists to look for really important problems to tackle and not be distracted by a constant pressure to publish.

In his new position, Dickson is unlikely to have much free time to engage in the reading that changed his life when he was a student. But in a sense, the new and the unexpected have always been present in his career, as his latest move proves. "When I first heard that I would become the new director of the IMP, I nearly fell off my chair," he says. ■

CV **2003–05:** Senior scientist, Institute of Molecular Biotechnology, Austrian Academy of Sciences, Vienna, Austria.
1998–2002: Group leader, Research Institute of Molecular Pathology, Vienna, Austria.
1996–98: Junior group leader, Institute of Zoology, University of Zurich, Switzerland.